



Launch Mission Execution Forecast

Mission: Falcon 9 Starlink L-18

Issued: 1 Feb 2021 / 0830L (1330Z)

Valid: 4 Feb 2021 / 0109 – 0130L (0609 – 0630Z)



Forecast Discussion: A significant change is in store for Central Florida's weather today as cold air rushes in behind the cold front that passed this morning, aided by a digging upper level trough. Humidity levels will take a nosedive today as temperatures remain steady, then plummet along the Space Coast overnight. A strong low pressure system off the Carolina coast will slowly meander northward to the mid-Atlantic, and then New England by Wednesday. This slow motion will maintain a tight pressure gradient across the Spaceport, keeping sustained winds out of the northwest in the 20-30 mph range. Clouds will gradually decrease in coverage across the Spaceport today, but moisture wrapping around the low off the Carolinas will keep a stratocumulus deck in place into Tuesday. Pleasant conditions are expected mid-week as the low pressure system accelerates farther north, loosening its grip on our local weather. Expect mostly clear skies with winds decreasing gradually as high pressure builds in. Conditions will be ideal for launch early Thursday morning with only a very slight concern for liftoff winds if the low pressure area moves out slower than forecast.

On Thursday, the high pressure area slides east, creating southeast winds along the Space Coast. This generates a slight chance for a cumulus cloud violation with Gulf Stream showers early Friday morning.

Launch Day	Probability of Violating Weather Constraints					
	<10%	Primary Concerns: Liftoff Winds				
	Weather Conditions					Additional Risk Criteria
	Weather/Visibility: None / 7 mi.	Clouds				Upper-Level Wind Shear: Low
	Temp/Humidity: 45°F / 72%	Type	Coverage	Base (ft)	Tops (ft)	Booster Recovery Weather: Moderate
24-Hour Delay	Liftoff Winds (200'): 300° 5 - 10 mph	Cirrostratus	Few	25,000	28,000	Solar Activity: Low
	Probability of Violating Weather Constraints					
	10%	Primary Concerns: Cumulus Cloud Rule				
	Weather Conditions					Additional Risk Criteria
	Weather/Visibility: None / 7 mi.	Clouds				Upper-Level Wind Shear: Low
	Temp/Humidity: 55°F / 82%	Type	Coverage	Base (ft)	Tops (ft)	Booster Recovery Weather: Moderate
	Liftoff Winds (200'): 160° 10 - 15 mph	Cumulus	Few	3,000	6,000	Solar Activity: Low
	Note: The Probability of Violation (POV) is the chance that a Lightning Launch Commit Criteria (LLCC) or certain user constraints (surface winds, precipitation, and temperatures, etc.) will be violated during the launch window. It does not take into account upper-level wind shear, booster recovery weather, and solar activity.					
Next Forecast Will Be Issued		2 Feb 2021				